

Replacement Sheets Of Drawings

Replacement sheets of drawings for figures 1-285 are being submitted concurrently with this Reply.

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-74 are pending in the application, with claims 1, 13, 25, 36, 49, and 62 being the independent claims. Claims 13-74 have been withdrawn by the Examiner due to an election of species requirement. Claim 3 is sought to be amended to correct a minor informality. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Examiner Interview

Applicants thank the Examiner for the interview conducted on March 13, 2006. During the interview, Applicants' representative discussed the pending claims and applied reference with the Examiner and reasons why the pending claims are allowable over the applied reference.

Objection to the Drawings

On page 1 of the Office Action, the Examiner objected to the informal drawings submitted for the application. Replacement sheets of drawings for figures 1-285 are being submitted concurrently with this Reply. Reconsideration and withdrawal of this objection are respectfully requested.

Rejections under 35 U.S.C. § 102

Beginning on page 2, paragraph 3 of the Office Action, the Examiner rejected claims 1-4 and 6-12 under 35 U.S.C. § 102(e) as being allegedly unpatentable over U.S. Patent Publication No. 6,404,758 to Wang (hereinafter “Wang”). Applicants respectively traverse this rejection.

Wang appears to disclose a system and method for achieving slot synchronization in a wideband CDMA system. As shown in figure 1 of Wang, the system and method of Wang employ a RF circuit 115, a first search code matched filter 130, an accumulator 140, and a circular sliding integrator 150. RF circuit 115 filters a signal 105 and converts the received radio frequency signal to a baseband signal. (See Wang at column 6, lines 27-29.) A baseband signal does not include a carrier signal.

Claim 1 of the present application recites:

1. A method for down-converting an electromagnetic signal, comprising the steps of:
 - (1) performing a matched filtering/correlating operation on a portion of a carrier signal;
 - (2) accumulating the result of the matched filtering/correlating operation of step (1); and
 - (3) repeating steps (1) and (2) for additional portions of the carrier signal, whereby the accumulation results form a down-converted signal.

As discussed with the Examiner during the Examiner Interview, Wang neither teaches nor suggests the combination of steps recited in claim 1 for forming a down-converted signal.

For example, as shown in figure 1 of Wang, the first search code matched filter 130 of Wang operates on the baseband signal output by RF circuit 115. Because a

baseband signal does not include a carrier signal, the first search code matched filter 130 of Wang does not perform “a matched filtering/correlating operation on a portion of a carrier signal” as recited in independent claim 1. This step is neither taught nor suggested by Wang. Thus, for at least this reason, independent claim 1 of the present application is allowable over Wang. Claims 2-4 and 6-12 depend, either directly or indirectly, from independent claim 1 and are allowable over Wang for at least the same reasons independent claim 1 is allowable, and further for the specific features recited in claims 2-4 and 6-12. Reconsideration and allowance of claims 1-4 and 6-12 are respectfully requested.

Objection To Claim 5

Applicants thank the Examiner for identifying claim 5 as containing allowable subject matter. For at least the reasons presented above, claim 1 is allowable. Thus, claim 5 is not dependent on an unallowable base claim. Reconsideration and allowance of claim 5 are respectfully requested.

Withdrawn Claims 13-74

As discussed with the Examiner during the Examiner interview, the specie represented by claims 1-12 of the present application is allowable. Claims 13-74 can be examined without undue burden and without conducting a new search. Thus, consideration and allowance of claims 13-74 is respectfully requested.

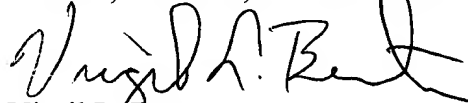
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Virgil L. Beaton
Attorney for Applicants
Registration No. 47,415

Date: 3/14/06

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

483449_1.DOC